

KONGUNADU ARTS AND SCIENCE COLLEGE (AUTONOMOUS)
Re-accredited by NAAC with 'A+' Grade (4th Cycle)
College of Excellence (UGC) Coimbatore - 641 029

DEPARTMENT OF BOTANY

COURSE OUTCOMES (CO)

Certificate Course in Herbal Science and Analytical Techniques

**For the students admitted
in the Academic Year 2022-2023**

Programme Code: 05	CERTIFICATE COURSE – HERBAL SCIENCE AND ANALYTICAL TECHNIQUES		
Core Paper: 1 HERBAL SCIENCE			
Batch 2022-2023	Hours / Week 2	Total Hours 30	Credits 2

COURSE OBJECTIVES

- To study the importance of medicinal plants
- To learn the uses of plant secondary metabolites
- To inculcate vegetative and *in vitro* propagation techniques

COURSE OUTCOMES

On successful completion of the course, the students will be able to

K1 ↑ ↓ K5	CO1	Acquire knowledge on various types of Indian system of medicine
	CO2	Utilize the applications of different pharmacopoea
	CO3	Apply knowledge on secondary metabolite extraction
	CO4	Implement the cultivation practices for propagation of medicinal plants
	CO5	Know how to patent and commercialize a product

Programme Code: 05	CERTIFICATE COURSE – HERBAL SCIENCE AND ANALYTICAL TECHNIQUES		
Core Paper 2: ANALYTICAL TECHNIQUES			
Batch 2022-2023	Hours / Week 2	Total Hours 30	Credits 2

COURSE OBJECTIVES

- To learn the basics of analytical instruments
- To apply instruments for various applications
- To perform the trouble shooting of instruments

COURSE OUTCOMES

On successful completion of the course, the students will be able to

K1 ↑ ↓ K5	CO1	Know how important instruments in entrepreneurship
	CO2	Utilize the instruments for academic and research purpose
	CO3	Handle and get results for the study samples
	CO4	Get job opportunities in herbal companies
	CO5	Start a instrumentation facility centre for plant sample analysis

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Core practical 1: ANALYTICAL TECHNIQUES LAB				
Batch 2022-2023	Semester I	Hours / Week 2	Total Hours 30	Credits 2

COURSE OBJECTIVES

- To study the various plant samples
- To prepare solutions and samples for analysis
- To work with various instruments

COURSE OUTCOMES

On successful completion of the course, the students will be able to

K3 ↑ ↓ K5	CO1	Analyze various study samples
	CO2	Work with instruments and get reports
	CO3	Optimise and operate the instruments individually
	CO4	Start consultancy services
	CO5	Start their own business

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Programme Code: 05		CERTIFICATE COURSE – HERBAL SCIENCE AND ANALYTICAL TECHNIQUES		
PROJECT & VIVA – VOCE				
Batch 2022-2023	Semester I	Hours / Week 2	Total Hours 30	Credits 2

COURSE OBJECTIVES

- To identify practical issues in field of herbal science
- To understand the data collection and processing
- To apply proper techniques to analyze and interpret the research data

COURSE OUTCOME

On successful completion of the project work, the students will be able to

K3 ↑ ↓ K5	CO1	Applying theoretical skill sets in lab oriented experiments
	CO2	Analyzing the importance of project work while collecting necessary data
	CO3	Evaluating variations between theories and experiments
	CO4	Apply the principles and concepts in their research components
	CO5	Executing standard operating procedures and interpretation of appropriate results